

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A device for detecting a turbo pump drive state in a ~~tendetron~~ tandetron accelerator of a semiconductor ion implantation device, comprising:

a turbo pump formed inside of the accelerator;

a stripper formed inside the accelerator,

a current detecting part formed inside of the accelerator for detecting a turbo pump driving current applied to the turbo pump, and providing a first electrical signal indicative of the detected turbo pump driving current;

an electro-optical converter formed inside of the accelerator for converting the first electrical signal to an optical signal;

a photoelectric converter formed outside of the accelerator for converting the optical signal to a second electric signal;

an optical cable formed between the electro-optical converter and the photoelectric converter for carrying the optical signal out of the accelerator; and

a displaying part formed outside of the accelerator for receiving the second electric signal and displaying the turbo pump driving current contained in the second electric signal,

wherein the current detecting part and the electro-optical converter are assembled on a board and disposed in the stripper, thereby preventing dielectric breakdown.

2. (Original) The device for detecting a turbo pump drive state as recited in claim 1, further comprising an interlock generator formed outside of the accelerator for comparing the second electric signal with a set current range, and generating an interlock signal when the second electric signal is out of the set current range.

3. (Original) The device for detecting a turbo pump drive state as recited in claim 2,

further comprising an accelerator power supply formed outside of the accelerator for providing power to the accelerator,

wherein the accelerator power supply receives the interlock signal generated from the interlock generator, and

wherein the accelerator power supply stops providing power to the accelerator when it receives the interlock signal.

4. (Original) The device for detecting a turbo pump drive state as recited in claim 1, further comprising:

a generator formed inside of the accelerator for generator drive power; and  
an electrical cable for supplying the drive power to the turbo pump,

wherein the current detecting part is electrically connected to the electrical cable.

5. (Canceled).

6. (Currently Amended) The device for detecting a turbo pump drive state as recited in claim 5 1, wherein the optical cable maintains an electric insulating state between a ground of the tendetron accelerator and a high voltage of the stripper.

Claims 7-10 (Canceled).